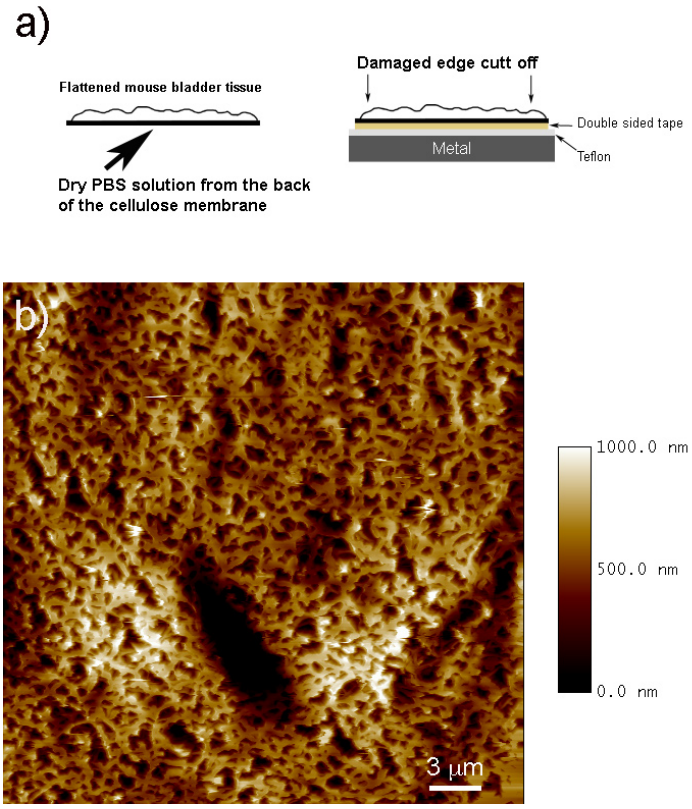
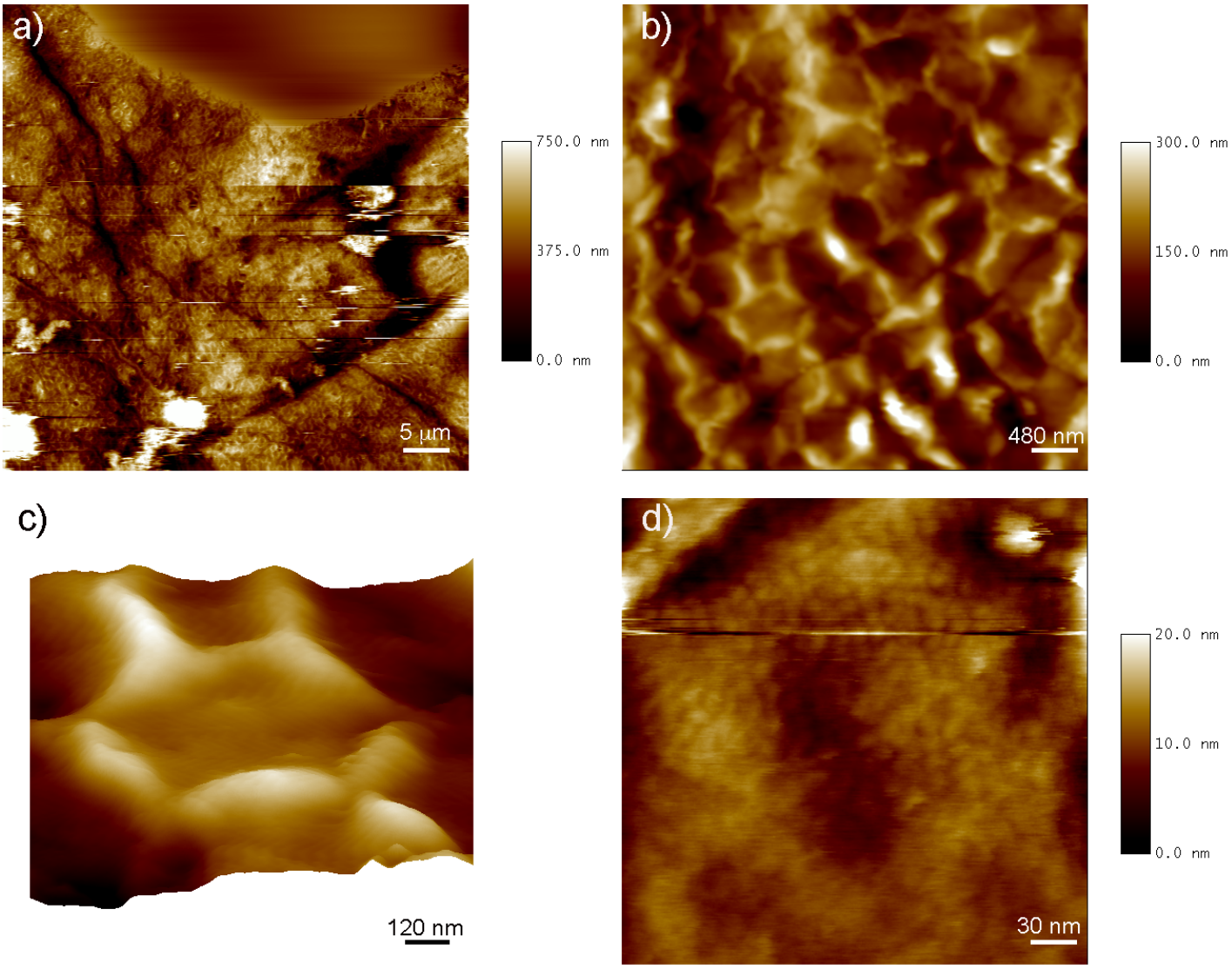
Supplemental Figure 1.



Supplemental Figure 1. Immobilization of mouse bladder tissue on nitrocellulose membranes. (A) Schematic illustration of the nitrocellulose mounting of unfixed mouse urothelium. A piece of mouse bladder tissue in PBS was adsorbed to a porous nitrocellulose membrane. The other side of the membrane was blotted to remove the excess PBS solution and to increase adhesion. The sample was then attached to a Teflon covered metal plate using double sided tape. (B) Surface of the nitrocellulose membrane imaged by AFM in air.

Supplemental Figure 2.



Supplemental Figure 2. AFM images of the apical surface of mouse urothelium fixed with conventional method. The mouse bladder tissue was fixed by glutaraldehyde/OsO4 and immobilized using the tissue holder developed by Reichlin et al. (2005). The images were taken with the sample immersed in water. (A) Overview of the apical surface. The tissue shows deep infolds. (B) The surface is covered with scalloped appearance urothelial plaques. (C) Three dimensional view of the concave urothelial plaques. (D) Within one plaque the dense packing of 16 nm uroplakin particles is visible. However the lattice is not well preserved and the six-fold symmetry characteristic of the particles is hardly visible.